

What is Claimed:

- 5 1. An emulsifier composition comprising: an emulsifier blend of 10 to 90 parts by weight of a synthetic alkyl arenesulfonate and 10 to 90 parts by weight of a salt of a coupled reaction product of
- (A)(I) a high-molecular weight polycarboxylic acylating agent, said acylating agent (A)(I) having at least one hydrocarbyl substituent having an
- 10 average of from about 20 to about 500 carbon atoms,
- (B)(I) at least one low-molecular weight polycarboxylic acylating agent, said acylating agent (B)(I) optionally having at least one hydrocarbyl substituent having an average of 6 to about 19 carbon atoms, and
- said components (A)(I) and (B)(I) being coupled together by (C) at
- 15 least one compound having (i) two or more primary amino groups, (ii) two or more secondary amino groups, (iii) at least one primary amino group and at least one secondary amino group, (iv) at least two hydroxyl groups or (v) at least one primary or secondary amino group and at least one hydroxyl group.
- 20 2. The composition of claim 1 wherein (A)(I) is derived from at least one alpha-beta olefinically unsaturated carboxylic acid or acid-producing compound, said acid or acid-producing compound containing up to about 20 carbon atoms exclusive of the carboxyl-based groups wherein said hydrocarbyl substituent of (A)(I) has an average of from about 30 to about
- 25 500 carbon atoms.
3. The composition of claim 1 wherein (A)(I) is the reaction product of an acylating agent and a hydrocarbyl group, wherein said hydrocarbyl group is a poly(isobutylene) group.
4. The composition of claim 1 wherein (B)(I) is the reaction product
- 30 of an acylating agent and a hydrocarbyl group, wherein said hydrocarbyl group has an average of from about 8 to about 18 carbon atoms.

5. The composition of claim 4 wherein said hydrocarbyl group of (B)(I) has an average of from about 12 to about 18 carbon atoms.

6. The composition of claim 4 wherein said hydrocarbyl group of (B)(I) is derived from at least one member within alpha-olefin fraction
5 selected from the group consisting of C₁₅₋₁₈ alpha-olefins, C₁₂₋₁₆ alpha-olefins, C₁₄₋₁₆ alpha-olefins, C₁₄₋₁₈ alpha-olefins and C₁₆₋₁₈ alpha-olefins.

7. The composition of claim 1, wherein the molar ratio of (B)(I) to (A)(I) in the coupled product is from about 1:1 to 4:1.

8. The composition of claim 7, wherein said molar ratio is from
10 about 2:1 to 3:1.

9. The composition of claim 1, wherein C comprises a diol.

10. The composition of claim 1 wherein component (C) comprises ethylene glycol.

11. The composition of claim 1; wherein the counter ion used to form
15 said salt comprises triethanolamine.

12. The composition of claim 1 wherein component (C) comprises at least one polyol.

13. The composition of claim 1 wherein component (C) comprises at least one compound represented by the formula R(OH)_m, wherein R is a
20 monovalent or polyvalent organic group joined to the OH groups through carbon-to-oxygen bonds and m is an integer of from 2 to about 4.

14. A composition according to claim 1 in which (A)(I) is a polyisobutylene substituted succinic anhydride (number average molecular weight=500-2000), (B)(I) is a C₆ to C₁₉ hydrocarbyl-substituted succinic
25 anhydride; (C) is ethylene glycol; (A)(II) and (B)(II) are both dimethylethanolamine and the ratio of (B)(I) to (A)(I) is from 2:1 to 3:1.

15. A composition according to claim 14, wherein said synthetic alkyl arenesulfonate is present from about 20 to about 80 wt.% of said blend and said salt of the coupled reaction product is present from about 20 to about
30 80 wt.% of said blend.

16. A composition according to claim 1, wherein an excess of counterion is used beyond that required to form said salt of the reaction product.

17. A composition according to claim 11, wherein an excess of triethanolamine is used beyond that required to salt said reaction product.

18. An aqueous oil-in-water emulsion functional fluid comprising: water and an emulsifying quantity of a blend of a synthetic alkyl arenesulfonate and a salt of a reaction product of

a (A)(I) high-molecular weight polycarboxylic acylating agent, said acylating agent (A)(I) having at least one hydrocarbyl substituent having an average of from about 20 to about 500 carbon atoms, and

at least one (B)(I) low-molecular weight polycarboxylic acylating agent, said acylating agent (B)(I) optionally having at least one hydrocarbyl substituent having an average of from about 6 to about 19 carbon atoms,

said components (A)(I) and (B)(I) being coupled together by (C) at least one compound having (i) two or more primary amino groups, (ii) two or more secondary amino groups, (iii) at least one primary amino group and at least one secondary amino group, (iv) at least two hydroxyl groups or (v) at least one primary or secondary amino group and at least one hydroxyl group.